

**Amendments to the Drawing Figures:**

The attached drawing sheets include proposed changes to FIGs. 5-8, and replace the original sheets including FIGs. 5-8. The proposed changes to FIGs. 5-8 include adding descriptive text to 'blocks' in the various drawings.

Attachment: Replacement Sheets, FIGs. 5-8.

## **REMARKS/DISCUSSION OF ISSUES**

### ***Claim Summary***

By this Amendment, claim 1 has been canceled, without prejudice and without disclaimer of its subject matter; and claim 2 has been amended to substantially include the subject matter of canceled claim 1. Claims 11 and 19 have been amended to substantially include subject matter of claim 2. Further, claims 2-19 have been amended to correct informalities and to enhance the clarity of the claim language, for example, to replace European-style claim phraseology with American-style claim language.

Claims 2-19 are pending in the application. Applicant respectfully submits that all pending claims are in condition for allowance.

### ***Drawings***

The Examiner objected to Figures 5-8, asserting that unlabeled rectangular boxes and all flow chart boxes shown in the drawings should be provided with descriptive text labels. (See Office Action, p. 17). Accordingly, Figures 5-8 have been amended to include descriptive text. No new matter has been introduced in the application by these amendments.

Accordingly, an indication of approval of the newly submitted drawings is respectfully requested.

### ***35 U.S.C. § 102 Rejections - Claims 1, 8, 9, 11, 17 and 18***

The Office Action of December 28, 2007, rejects claims 1, 8, 9, 11, 17 and 18 under 35 U.S.C. § 102(e) as being anticipated by TAKAHASHI et al (U.S. Patent No. 6,717,355). Applicant respectfully traverses the rejection because TAKAHASHI et al. does not disclose each and every element of the claims.

Applicant relies at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See,*

*e.g.*, *In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g.*, *Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g.*, *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Initially, Applicant respectfully submits that the rejection of claims 1, 8 and 9 under 35 U.S.C. § 102(e) is moot. Independent claim 1 has been canceled, without prejudice and without disclaimer of the subject matter, and claims 8 and 9, which depended from claim 1, have been amended to depend from claim 2, which Applicant submits is allowable, as discussed below.

Further, independent claims 11 and 19 have been amended to recite, in part, "wherein determining the current signal modulation includes determining a first color coordinate set representing LED emission spectra at a first LED operational temperature, and determining a second color coordinate set representing a correlated color temperature (CCT) shift in the LED emission spectra due to operation of the LED at a second operational temperature, the color temperature correction corresponding to the CCT shift." The Examiner acknowledges that TAKAHASHI et al. does not disclose these features. *See* Office Action, p. 4.

Because TAKAHASHI et al. fails to disclose each and every claim recitation, the rejection of claims 11 and 19 under 35 U.S.C. § 102(e) should be withdrawn. (Claims 11 and 19 are also allowable over the combination of TAKAHASHI et al. and KAMIKAWA et al., as discussed below with respect to claim 2, as amended.) Claims 17 and 18 depend from claim 11 and are therefore allowable for at least the reasons discussed with respect to claim 11, as well as in view of their additional recitations.

**35 U.S.C. § 103 Rejections - Claims 2-4, 6, 7, 10, 12-16 and 18**

The Office Action of December 28, 2007, rejects claims 2-4, 6, 7, 10, 12-16 and 18 under 35 U.S.C. § 103(a) as being unpatentable over TAKAHASHI et al. in view of KAMIKAWA et al. (U.S. Patent No. 6,628,249). Applicant respectfully traverses the rejection because no proper combination of TAKAHASHI et al. and KAMIKAWA et al. teaches or suggests each and every element of the claims.

As stated in MPEP § 2143, in order to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant's silence on certain aspects of the rejection is by no means a concession as to their propriety. Rather, because the applied art fails to disclose at least one feature of the claims, for at least the reasons discussed below, Applicant respectfully submits that the rejections are improper and should be withdrawn.

Claim 2

Claim 2 recites, in part, "wherein determining the current signal modulation comprises determining a first color coordinate set representing LED emission spectra at a first LED operational temperature, and determining a second color coordinate set representing a correlated color temperature (CCT) shift in the LED emission spectra due to operation of the LED at a second operational temperature, the color temperature correction corresponding to the CCT shift." The Examiner acknowledges that TAKAHASHI et al. does not disclose this subject matter, and therefore relies on KAMIKAWA et al. in combination with TAKAHASHI et al. to reject claim 2, referring to col. 1, lines 42-48, and col. 5, lines 1-3, in particular. See Office Action, p. 4.

However, col. 1, lines 42-48, of KAMIKAWA et al. describe a phenomenon in which the wavelength of light emitted from AlGaAs semiconductor light emitting devices becomes longer as a driving current and temperature increase, referred to as the "red shift phenomenon." Col. 1, lines 38-43. However, simply identifying such a phenomenon does not teach or suggest actually determining a current signal modulation, including determining first and second color coordinate sets, respectively representing LED emission spectra at a first LED operational temperature and a CCT shift in the LED emission spectra due to operation of the LED at a second operational temperature. Also, there is no teaching or suggestion of a color temperature correction corresponding to this CCT shift. Col. 5, lines 1-3, generally provide that variations in emission intensity and light color may be suppressed, but does discuss temperature, CCT shifting, modulation of a current signal in relation based on determining color coordinate sets, etc. In fact, the cited portions of KAMIKAWA et al. do not disclose "determining" anything.

Accordingly, because the combination of TAKAHASHI et al. and KAMIKAWA et al. fails to teach or suggest each and every claim recitation, the rejection of claim 2 under 35 U.S.C. § 103(a) should be withdrawn.

Applicant notes that claims 11 and 19, discussed above, have been amended to include recitations similar to claim 2, and therefore submit that claims 11 and 19 are likewise patentable over any proper combination of TAKAHASHI et al. and KAMIKAWA et al. for substantially the same reasons.

Claims 3, 4, 6, 7, 10, 12-16, 18

Claims 3, 4, 6, 7, 10, 12-16 and 18 depend, directly or indirectly, from claims 2 and 11, respectively, and are therefore allowable for at least the reasons discussed above. Claims 3, 4, 6, 7, 10, 12-16 and 18 are further allowable in view of their additional recitations.

For example, claim 3 recites, in part, "wherein applying the determined current signal modulation to the LED causes the LED emission spectra at the first color coordinate set to be substantially constant as the LED operational temperature

changes from the first LED operational temperature to the second LED operational temperature." The Examiner acknowledges that TAKAHASHI et al. does not disclose the recitations of claim 3, and therefore relies on col. 1, lines 42-48, and col. 5, lines 1-3 of KAMIKAWA et al. to teach the same. See Office Action, pp. 5-6.

However, as discussed above with respect to claim 2, col. 1, lines 42-48, merely identify a phenomenon in which light wavelength increase in response to increased temperature, and col. 5, lines 1-2, states that variations in emission intensity and light color may be suppressed. There is no teaching or suggestion of the LED emission spectra at the first color coordinate's being substantially constant as the LED operational temperature changes from the first LED operational temperature to the second LED operational temperature.

### **CONCLUSION**

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 2-19, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Van C. Ernest (Reg. No. 44,099) at (571) 283-0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment (except for the issue fee) to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,  
VOLENTINE & WHITT

Date: March 21, 2008

By:

A handwritten signature in black ink, appearing to read 'V-C Ernest', written over a horizontal line.

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